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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,874	08/30/2001	Sang Chul Yoon	2832-0145P	7519
2292	7590	07/14/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			PREVIL, DANIEL	
			ART UNIT	PAPER NUMBER

2636

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/941,874	Applicant(s) YOON ET AL.	
	Examiner Daniel Previl	Art Unit 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 33 is/are allowed.
6) ☒ Claim(s) 1-4 and 22-32 is/are rejected.
7) ☒ Claim(s) 5-7 is/are objected to.
8) ☒ Claim(s) 8-21 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "external Internet network and home network" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because the abstract is too long; the abstract not supposed to exceed 150 words in length since the space provided for the abstract is limited. Correction is required. See MPEP § 608.01(b).

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams et al. (US 6,587,739) in view of Rostoker, Michael (EP 0782117).

Regarding claim 1, Abrams discloses an apparatus for remotely controlling household appliances (abstract) comprising: a first network processor 30 for performing remote communication with an external Internet network 35 to receive external remote control information (col. 3, lines 17-19 and lines 45-47), first network processor 30 being connected to home network 10 to transmit the receive remote control information to an associated one of household appliances and receive information regarding a current state of each of household appliances to transmit the received state information to external Internet network (communication networks 30 is connected to house 10; controlling the application of power to a lamp 64 or an appliance, transmit status information to controllers 50 and 60) (col. 3, lines 15-25, line 45-50 and lines 58-67); the input of an associated one of household appliances via a power line for receiving remote control information from first network processor and transmitting the state information of the associated household appliance to first network processor (sending and receiving commands and data over the power lines 27) (col. 4, lines 4-32).

Abrams discloses all the limitations above but fails to explicitly disclose a plurality of second network processors each connected between the output of first network processor.

However, Rostoker discloses a plurality of second network processors 14 each connected between the output of first network processor 12 (fig. 1; col. 2, lines 27-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rostoker in Abrams. Doing so would control accurately a plurality of appliances to indicate when to turn on or turn off. Users acquire peace of mind when using this system because it let the users to determine desired setting while away from home as taught by Rostoker (col. 2, lines 38-59).

Regarding claim 2, the above combination discloses all the limitations in claim 1 and Rostoker further discloses a first network processor 12 includes a transmitter/receiver module 34 for performing information transmission and reception operations with second network processors 14; each second network processors includes a transmitter/receiver module 18 for performing transmission and reception operations with first network processor (fig. 1). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rostoker in Abrams. Doing so would control accurately a plurality of appliances to indicate when to turn on or turn off. Users acquire peace of mind when using this system because it let the users to determine desired setting while away from home as taught by Rostoker (col. 2, lines 38-59).

Regarding claim 3, Abrams discloses a communication modules installed in the associated household appliance and connected directly to home network 10 constructed among household appliances (50, 52, 54) using power lines 27, for generating information about an operating state of the associated household

appliance and user notification information according to characteristics of the associated appliance (fig. 1; col. 18, lines 54-63; col. 9, lines 13-28).

Abrams discloses all the limitations above but fails to explicitly disclose a plurality of second networks.

However, Rostoker discloses a plurality of second network processors 14 (fig. 1; col. 2, lines 27-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rostoker in Abrams. Doing so would control accurately a plurality of appliances to indicate when to turn on or turn off. Users acquire peace of mind when using this system because it let the users to determine desired setting while away from home as taught by Rostoker (col. 2, lines 38-59).

Regarding claim 4, the above combination discloses all the limitations in claim 1 and Rostoker further discloses second network processors includes a screen display communication module installed in a screen displayable one of household appliances for collecting the operating state and displaying the results on a screen of the displayable household appliance to provide a visual indication to a user (television set inherently include a visual indication to a user) (col. 2, lines 38-50). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rostoker in Abrams. Doing so would control accurately a plurality of appliances to indicate when to turn on or turn off. Users acquire peace of mind when using this system

because it let the users to determine desired setting while away from home as taught by Rostoker (col. 2, lines 38-59).

6. Claims 22-24, 26-27, 29-30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker, Michael (US 0 782 117) in view of Moriai Koudo (JP 02000196769A).

Regarding claims 22, 24, Rostoker discloses an apparatus for remotely controlling at least one household appliance (abstract) comprising: a household appliance microcomputer (network manager 12 having a microprocessor 24) for controlling operations of various components in household appliance, checking operating states of components (col. 2, lines 26-59); a network processor for communication with household appliance microcomputer (fig. 1); a communication controller connected between household appliance microcomputer and network processor for performing a communication processing function and signal function there between (RF transceiver operable to communicate with the plurality of first RF transceiver for controlling checking status of the household units) (col. 1, lines 30-38).

Rostoker discloses all the limitations above but fails to explicitly disclose a repair service over an Internet network upon receiving fault/repair information from microcomputer.

However, Koudo discloses a repair service over an Internet network upon receiving fault/repair information from microcomputer (solution).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Koudo in Rostoker. Doing so would prevent an appliance from functioning and in case of fault; a reliable service repair could be contacted to improve the performance of the appliance as taught by Koudo (solution).

Regarding claim 23, the above combination discloses all the limitations in claim 22 and Koudo further discloses a service center responsive to an automatic service call from network processor for receiving records of a fault of household appliance and repairing the fault (solution).

Regarding claim 26, Rostoker discloses household appliance microcomputer is adapted to check the operation of household appliance and generate information about the use of appliance as a result of the checking and network processor is adapted to transmit and receive a variety of control information, containing the use information generated by microcomputer (col. 2, lines 27-59).

Regarding claim 27, Rostoker discloses a communication terminal for calling household appliance to transmit remote control information from a user to appliance and a communication service provider for accommodating user as a subscriber of communication terminal and transmitting remote control information from user to household appliance (fig. 1; col. 3, lines 35-45).

Regarding claim 29, Rostoker discloses communication service provider and communication terminal are interconnected in a wireless manner (fig. 1).

Regarding claim 30, Rostoker discloses a radio antenna for transmitting and receiving radio communication data to/from communication service provider; and a radio transmitter/receiver module for processing radio communication data transmitted and received between radio antenna and network processor (fig. 1).

7. Claims 25, 28, 31-32, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker in view of Moriai Koudo and further in view of Abrams.

Regarding claim 25, Rostoker and Koudo disclose all the limitations in claim 22 and Rostoker further discloses a pair of communication processors connected respectively to network processor and household appliance microcomputer for performing communication processing function there between (fig. 1) but fail to explicitly disclose a power processor connected between communication processors for performing a power on/off function to prevent a mismatch between a power line and a signal line.

However, Abrams discloses a power processor 20 connected between communication processors for performing a power on/off function to prevent a mismatch between a power line and a signal line (fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Abrams in Rostoker and Koudo. Doing so would greatly enhance the appliance system performance, wherein users can acquire peace of mind when using this system

because it can remotely obtain information related to the appliances as taught by Abrams (abstract).

Regarding claim 28, the above combination discloses all the limitations in claim 22 and Abrams further discloses communication service provider and communication terminal are interconnected via a wire cable 35 (fig. 1).

Regarding claim 31, the above combination discloses all the limitations in claim 29 and Rostoker further discloses a radio antenna for transmitting and receiving radio communication data to/from communication service provider (fig. 1); a transmitter/receiver module connected to household appliance via network transfer media for transferring information between appliance (fig. 1) but fails to explicitly disclose a home server acting as a relay between Internet network and a home network for connecting radio communication data.

However, Abrams discloses a home server acting as a relay between Internet network and a home network for connecting radio communication data (fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Abrams in Rostoker and Koudo. Doing so would greatly enhance the appliance system performance, wherein users can acquire peace of mind when using this system because it can remotely obtain information related to the appliances as taught by Abrams (abstract).

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Regarding claim 32, the above combination discloses all the limitations in claim 29 and Abrams further discloses power line 27 and Internet dedicated line 35 said Internet dedicated line being an asymmetric digital subscriber line (fig. 1). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Abrams in Rostoker and Koudo. Doing so would greatly enhance the appliance system performance, wherein users can acquire peace of mind when using this system because it can remotely obtain information related to the appliances as taught by Abrams (abstract).

Allowable Subject Matter

8. Claim 33 is allowed.
9. The following is a statement of reasons for the indication of allowable subject matter: The prior arts fail to teach or make obvious: allowing service center to receive the transmitted fault/repair records if unique identification code is valid and then to display a reception acknowledgement message containing information about a visit time of a repairman and the degree of fault.

10. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed on April 22, 2004 have been fully considered but they are not persuasive.

The Applicant has argued, "The restriction is improper". The examiner respectfully disagrees with the Applicant because there are two distinct inventions in one application. One invention arranged in-group I and III is directed to household appliance over power line which is classified in class/subclass 340/310.01. The other invention arranged in-group II is directed to household appliance to use an IP address which is classified in class/subclass 340/539.14. Therefore, the examiner has to conduct different search for two different inventions.

For at least the above reason, the restriction is maintained.

12. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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13. Because these inventions are distinct for the reasons given above and the search required for Group I and III is not required for Group II, restriction for examination purposes as indicated is proper.

14. Applicant's election with traverse of groups I and III which are claims 1-7 and 22-33 in the reply filed on April 22, 2004 is acknowledged. The traversal is on the ground(s) that "the examiner has not met the burden of proving that the groupings are independent". This is not found persuasive because there are two distinct inventions in one application. The search required for group I and III is not required for group II.

The requirement is still deemed proper and is therefore made FINAL.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Holling et al. (US 5,321,229) discloses a remote control for a domestic appliance.

Matsumoto et al. (US 6,199,755) discloses a machine data acquisition system and method.

Piercy et al. (US 6,388,564) discloses a power distribution grid communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is 703 305-1028.

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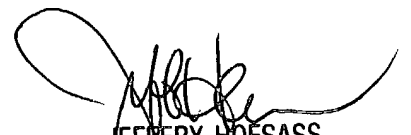
The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 703 305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Previl
Examiner
Art Unit 2636

DP
July 1, 2004.


JEFFERY HOFSSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600